

Response to:

A California Energy Commission Staff Workshop on the State's Role in Supporting Interoperability for Electric Vehicle Supply Equipment (EVSE) - docket #13-ALT-01

From:

Recargo, Inc., a California-based software and services provider that provides guidance to drivers and industry to support the adoption and growth of plug-in car technology.

About Recargo, Inc.

Recargo delivers sustainable transportation intelligence to EV owners, drivers, fleets, utilities and governments. Our products include: *PlugShare*, the leading charging station locator app; *PluginCars.com*, the web's premier site for reviews, user forums, and guides about purchasing and owning a plug-in hybrid or electric vehicle; *GreenCharge*, a tool to view your EV driving and charging patterns and environmental footprint; and *ChargeManager*, a comprehensive EV DR solution.

Position and Recommendations

Recargo strongly supports any efforts by the State to develop and promulgate interoperability standards for Electric Vehicle Supply Equipment.

In the State's work to support interoperability, Recargo believes that the State should focus on:

- a) ensuring driver access by guaranteeing access to all charging points regardless of network;
- b) standardizing payment systems across different charging networks, with an emphasis on ease of use for the consumer.

If the average consumer can access any charging station anywhere and pay with a standard credit card or similarly well-known solution at point-of-sale, consumer anxieties over both access and cost are reduced and overall demand will grow. In keeping with the ease of use theme, we believe there should be a requirement for networks to allow third party mobile apps to authorize payments so that users who are increasingly paying for products with mobile payment solutions can do so without needing to enroll in membership or subscription.

State actions

The State may wish to avoid mandating specific technologies involved in the authentication and payment process. However, beyond regulations, State solicitation requirements are a powerful tool for influencing the market for the benefit of consumers and to spur the growth of a healthy, competitive industry. To that end, Recargo recommends that the State require any new pay-to-use EVSE purchased or installed with the aid of State funds to at the very least be able to accept payment by magnetic stripe credit card readers, and even more ideally be able to accept

payment by third party mobile apps. The costs of such upgrades are relatively small compared with the cost of the complex, custom hardware already in place, and plenty of precedent exists from deployment in parking systems. Recargo believes this is in the best interest of the charging station owner/operators because we see that currently close to half of EV drivers have not used a public charging station due to lack of the requisite club card.

Recargo believes that the State ideally has no role in subsidizing electric vehicle supply equipment, and that network operators should be free to set charging rates at levels ensuring a reasonable return on investment and recovery of infrastructure costs. However, given the early mover advantage of some networks over others, Recargo believes the State should reserve the right to intervene as necessary to minimize market power issues, and this intervention could include targeted subsidy of installations to foster healthy competition.

Business models

In addition to helping reduce burdens on the consumer and ensuring a free market, State standards on interoperability may lead to improved business models for charging station operators, and will foster innovative uses of the charging station network. An open access network would, for example, remove the need for expensive overhead of access protocols. In addition, network operators would be free to operate loyalty programs and incentive schemes on stations outside of their own network, providing opportunities for new revenue streams.

Recargo also believes that the charging station network should be a substrate for innovation and value creation in both operation of the charging network and the electricity system as a whole: just as the growth of the internet enabled a proliferation of new industries and sources of value for the consumer, so an open access charging station network can support new businesses which can deliver charging station services - such as location and payment provision - more efficiently.

Furthermore, an open access network will facilitate the growth of grid-to-vehicle and, eventually, vehicle-to-grid services, with considerable value to network operators, customers and electricity system reliability, efficiency and cost. But such services have little value when the EVSE network is hampered by geographic disparity, strangulated data flows and no cross-network control.

Hardware interoperability

Finally, Recargo believes that hardware interoperability challenges will eventually take care of themselves if a strong regulatory framework exists to support EVSP interoperability. Such standards would create excellent financial incentives for both auto and charging station manufacturers to ensure their hardware is interoperable, and so State efforts to force standardization of hardware may be unnecessary and even counterproductive.

Recargo is grateful for the opportunity to participate in this workshop and appreciates the

Commission's concern and attention to this important issue.